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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,320	09/10/2004	Hideki Kitano	Q83497	4421
23373 7590 06/01/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER VERDERAME, ANNA L	
			ART UNIT 1756	PAPER NUMBER
			MAIL DATE 06/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

### Application No.

10/507,320

### Applicant(s)

KITANO ET AL.

### Examiner

Anna L. Verderame

### Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/10/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 3 is objected to because of the following informalities: The term "range" is misspelled as ---rang---. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuoka et al. JP-11102542 in view of Takehana et al. 6,337, 118.

Matsuoka et al. teaches a laminate consisting of a release sheet and a second Release sheet which are bonded to each other with a double sided adhesive sheet. A first disc substrate and a second disc substrate (16a and 16b) are prepared. The first release sheet is peeled off from the laminate and the 1<sup>st</sup> disc substrate 16a is bonded to the exposed adhesive surface of the double-sided adhesive sheet. Then the second release sheet is peeled off from the surface of the double-sided adhesive sheet opposite to the surface to which the 1<sup>st</sup> disc substrate 16a is bonded and the 2<sup>nd</sup> disc substrate 16b is bonded to the exposed adhesive surface of the double-sided adhesive sheet 11(abstract). The use of exfoliation sheets(release sheets) made from polyethylene, polyester, and polypropylene is disclosed at (0018). Benefits of using a

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double-sided adhesive sheet include reduced distortion and more precision in the thickness of the layer (0039-0041).

Matsuoka does not teach specific adhesive compositions for use in optical disks.

Takehana et al. teaches adhesive compositions for use in optical disks. The adhesive comprises a urethane (meth)acrylate A, a hydroxyl(meth) acrylate B, and at least one photo-initiator C. The adhesives of this invention exhibit superior adhesive properties with resins such as polycarbonate, or metals such as aluminum and gold(abstract) and (1/49-60). A cured product with a glass transition temperature more preferably in the range of 0° to 120°C is disclosed at (12/44). An adhesive layer having a thickness of between 10 to 100  $\mu\text{m}$  is disclosed at (12/62). If the light transmittance of the adhesive layer is less than 90% for the light used to read/record the medium then the medium is difficult to read/record. Therefore, in making the composition of the present invention each component should be blended so that the light transmittance of the resulting cured product is acceptable(13/1-10). The number average molecular weight of the urethane (meth)acrylate used in the present invention is preferably from 400 to 20000 and more preferably from 600 to 1000(5/60). Urethane methacrylate is incorporated in the composition of the present invention in an amount preferably from 5 to 85 parts by weight more preferably 15 to 65 parts by weight and most preferably 15 to 55 parts by weight (5/64-66). The photo-polymerization initiator is used in amounts preferably from 0.1 to 20 parts by weight more preferably 0.5 to 15 parts by weight, and even more preferably 1 to 10 parts by weight (7/22-24).

With respect to the surface roughness values recited in claims 25, 27, and 30-31, the materials used in the reference (polyester (0034)) are the same as those used by the applicant. The applicant has the burden of distinguishing their invention from that disclosed in the prior art or establishing the criticality of surface roughness and establishing that this characteristic is not present in the prior art.

With respect to the amount or the methacryloyl, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. In re Aller, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the amount of methacryloyl in order to effect the light transmittance of the resulting adhesive layer (Takehana 13/1-10). A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. In re Boesch and Slaney, 205 USPQ 215.

It would have been obvious to one of ordinary skill in the art to modify the dual sided adhesive taught by Matsuoka et al. by forming the adhesive sheet 11 using the adhesive compound taught by Takehana et al. with the reasonable expectation of forming a useful dual-sided adhesive for use in the manufacture of an optical recording medium.

4. Claims 10-24 over 35 U.S.C. 103(a) as being unpatentable over Ohki et al. 5,708,652 in view of Takehana et al 6,337,118.

Ohki et al. teaches a process for forming an optical recording medium using a

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Dual-sided adhesive laminate as illustrate in Fig 9A-9D and disclosed at (6/11-7/7). A recording medium comprising a transparent substrate, a first information recording layer is formed by rows of pits, a thin semi-transparent film on the first information recording layer, an intermediate layer on the semi-transparent layer, a second information layer formed by rows of pits, a reflecting film formed on the second information recording layer, and a protective layer on the second information recording layer. The intermediate layer is equivalent to the claimed adhesive layer (Fig. 2 and (4/6)). A stamper is used to form the first and second information recording layer ( Fig. 3G). Ohki does not teach the photo-curable composition having a methacryloyl functional group to the transparent substrate having a first information recording layer. The benefit of using a transferable photo-curable resin film is taught at (7/8-17).

With respect to the amount or the methacyloyl, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. In re Aller,<sup>105</sup> USPQ 233. One of ordinary skill in the art would have been motivated to adjust the amount of methacryloyl in order to effect the light transmittance of the resulting adhesive layer (Takehana 13/1-10). A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. In re Boesch and Slaney, 205 USPQ 215.

With respect to the use of reduced pressure at room temperature recited in claims 11, 12, 14, and 19, it is elementary that the mere recitation of newly discovered function or property inherently possessed by things in the prior art. In re Swinehart et

al., 169 USPQ 226 at 229. The burden is upon the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristics relied upon.

It would have been obvious to one of ordinary skill in the art to modify the process for forming an optical recording medium taught by Ohki et al. by forming the adhesive layer of the methacryloyl adhesive taught by Takehana et al. with the expectation of forming a useful dual-layered optical recording medium.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-24 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 and 12-31 of copending Application No. 10/491,607 further in view of Takehana et al. 6,337,118. Although the conflicting claims are not identical, they are not patentably distinct from each other. The

claims of the copending application recite all the limitations recited in the claims of the instant application except for the limitation that the photo-curable composition have a weight average molecular weight of not less than 5,000. Takehana et al. teaches a UV-curable composition where the number average molecular weight of the urethane (meth)acrylate used in the present invention is preferably from 400 to 20000 and more preferably from 600 to 1000(5/60).

It would have been obvious to one of ordinary skill in the art to form the UV-curable composition of the copending application of a urethane (meth)acrylate where the number average molecular weight of the urethane (meth)acrylate is preferably from 400 to 20,000 and more preferably from 600 to 1000 based on the disclosure in Takehana et al. at (5/60) and with the reasonable expectation of forming a useful adhesive for forming a dual-layered optical recording medium.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

-US 2003/0039794- process illustrated in Fig. 1. and at (0028-0032).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna L. Verderame whose telephone number is (571)272-6420. The examiner can normally be reached on M-F 8A-4:30P.



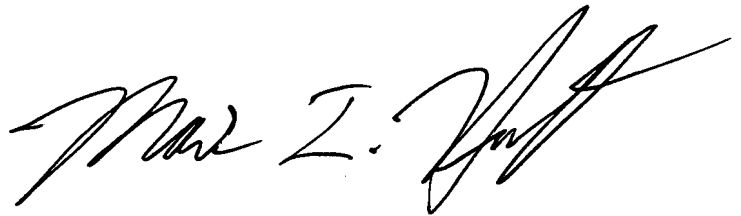
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571)272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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